

56 for the eleventh embodiment. The memory **902**, however, stores a driving object decision table **902a** shown in **FIG. 62**. As shown in the figure, the driving object decision table **902a** stores, for each of divided areas **A1** to **A5** on the touch panel **502**, area data showing the divided area concerned using XY coordinates and identification information of an oscillatory actuator to be driven when that divided area is touched. Note that in the figure, reference numerals assigned to the oscillatory actuators **115a** to **115d** are used as the identification information of the oscillatory actuators.

[**0365**] According to the driving object decision table **902a**, only the oscillatory actuator **115a** is driven when the area **A1** is touched on the touch panel **502** shown in **FIG. 61**. Further, all of the oscillatory actuators **115a** to **115d** are driven when the area **A5** is touched on the touch panel **502**.

[**0366**] In the case of detecting a touch operation on the touch panel **502**, the CPU **904** detects the touched position and refers to the driving object decision table **902a** to determine an oscillatory actuator(s) to be driven. Further, the CPU **904** drives the determined oscillatory actuator through the drive signal generation circuit **903** to cause the touch panel **502** and the liquid crystal display panel **501** to vibrate.

[**0367**] [L-2: Operation of Twelfth Embodiment]

[**0368**] **FIG. 63** is a flow chart for explaining the operation of the vibration control processing **7** executed by the CPU **904** in an ATM according to this embodiment. The vibration control processing **7** is executed by the CPU **904** at every predetermined period in a period in which a touch operation on the touch panel **502** is permitted.

[**0369**] As shown in the figure, first, the CPU **904** determines whether a touch signal has been input from the touch panel **502** (step **S801**). When it is determined that a touch signal has not been input, the CPU **904** ends the vibration control processing **7**. Further, when it is determined that a touch signal has been input, the CPU **904** identifies the touched position (XY coordinates) on the touch panel **502** based on the touch signal (step **S802**).

[**0370**] Next, the CPU **904** identifies the divided area in which the touched position is contained by referring to the driving object decision table **902a** shown in **FIG. 62** and determines an oscillatory actuator(s) to be driven (step **S803**). Next, the CPU **904** reads the waveform data of the drive signal for driving the determined oscillatory actuator(s) from the memory **902** (step **S804**). Further, the CPU **904** outputs the waveform data read from the memory **902** and the identification information of the oscillatory actuators determined at step **S803** to the drive signal generation circuit **903**. At the same time as this, the CPU **904** instructs the drive signal generation circuit **903** to generate a drive signal (step **S805**). Note that the processing in step **S806** and the following steps are similar to the processing in step **S104** and the following steps of the first vibration control processing explained in the first embodiment (see **FIG. 5**) except that only the designated oscillatory actuators among the plurality of oscillatory actuators **115a** to **115d** are driven, so explanations will be omitted.

[**0371**] As explained above, according to the present embodiment, the CPU **904** switches the oscillatory actuator(s) to be driven in accordance with a touched position on the touch panel **502**. Therefore, the ATM can efficiently

drive the oscillatory actuators **115a** to **115d** in accordance with the touched position on the touch panel **502**.

[**0372**] Note that in this embodiment, the area on the touch panel **502** was divided into a plurality of areas in advance and identification information of the oscillatory actuators to be driven when a divided area was touched is stored in the memory **902** for each divided area. It is however also possible, in the case of detecting a touch operation on the touch panel **502**, to detect the touched position, calculate the distances between the touched position and the oscillatory actuators **115a** to **115d**, and drive the closest oscillatory actuator.

[**0373**] [M: Thirteenth Embodiment]

[**0374**] In this embodiment, a vibration generator suitable for use in the first to twelfth embodiments will be explained. Note that the oscillatory actuator in this embodiment is a movable permanent magnet type linear oscillatory actuator which uses a permanent magnet as the movable weight and causes the movable weight to linearly reciprocate by electromagnetic force so as to generate vibration.

[**0375**] [M-1: First Example]

[**0376**] **FIG. 64** is a sectional view illustrating an internal structure of an oscillatory actuator **950** according to a first example of this embodiment. In the figure, the oscillatory actuator **950** has inside a case **961** a coil **962**, a movable weight **963** (weight), a brake member **964**, and a spring **966**. Note that in the figure, the vibratory member to which the oscillatory actuator **950** gives vibration is provided at a position facing the coil **962** across the case **961**. Further, the case **961** is sealed and functions as a magnetic shield. To give the function of a magnetic shield to the case **961**, it is sufficient to form the case **961** by a conductive material and ground it or make it the same potential or form the case **961** by a magnetic material having a large permeability.

[**0377**] The coil **962** is a coil having a substantially cylindrical shape as shown in the figure and is fixed to the case **961**. When driving the oscillatory actuator **950**, an alternating current (drive signal) is applied to the coil **962**.

[**0378**] The movable weight **963** is positioned above the coil **962**, and is a substantially columnar weight formed of a permanent magnet. At the bottom surface of this movable weight **963** is formed an annular depression in which the top end of the coil **962** fits. The movable weight **963** is supported by the spring **966** in a state where it can linearly reciprocate in the vertical direction in the figure in the space formed inside the case **961**. The spring **966**, as shown in the figure, has one end connected to the case **961** in contact with the vibratory member (base member) and has the other end connected to the movable weight **963**. Note that instead of the spring **966**, it is also possible to use a support member comprised using an elastic body such as a rubber band.

[**0379**] When a drive signal is applied to the coil **962**, this movable weight **963** linearly reciprocates in the vertical direction in the figure due to the magnetic force generated from the coil **962**. Vibrational acceleration occurs at the portion of the case **961** to which the spring **966** is connected by a counter force of the reciprocation of the movable weight **963**. Note that along with the reciprocation of the movable weight **963**, the portion of the case **961** to which the spring **966** is connected is subject to a vibration component